Policy Objective

To provide healthcare workers with details of the actions and responsibilities necessary to ensure that procedures related to decontamination do not pose risks to patients or healthcare workers and comply with current legislation.

Compliance with this policy is mandatory

See also: Standard Precautions Policy, CJD Policy and

Benchtop Steam Steriliser Usage Procedures

Contents

1. Responsibilities 3
1.1. Healthcare Workers (HCW) 3
1.2. Clinical / Ward Managers 3
1.3. Managers 3
1.4. Infection Control Team 3
1.5. SSD Manager, Estates Manager, Purchase Managers 3
1.6. Medical Physics Technicians 3
2. Introduction 4
3. The Use of Single-Use and Single-Patient Use Equipment 4
4. Definitions 4
5. Reusable Medical Devices (Reusable devices are NEVER marked single-use). 5
5.1. Risk Categorisation for the Decontamination of Medical Devices 5
5.2. Risk Categorisation of Clinical Procedure for all types of CJD 6
5.3. Surgical Instruments used on patients with or suspected of having CJD. 7
5.4. Decontaminating equipment 7
5.5. Quick Cut A-Z Table 8
5.6. Decontamination Table (This list is not exhaustive) 9
6. New Equipment Purchase for NHS, University, Research, Trial or Loan 18
7. General Good Practice Guidelines 19
7.1. Correct Disassembly and Reassembly of Surgical Instruments 19
7.2. Training 19
8. Symbols Used On Medical Packaging & Their Meanings 20
9. Disinfectants 21
9.1. Personal Protective Equipment 21
9.2. Hazard Warning – Urine Spillages 21
9.3. Spillages on Carpets 22
9.4. Body Fluid Spillage Procedure 23
9.5. Formulae for disinfectant calculations 24
10. Adverse Incident Reporting (Medical Devices) 24
11. Equipment Sent for Service or Repair 25
11.1. When requesting a repair 25
11.2. For Routine Maintenance 25
12. Audit 26
12.1. Criteria 26
13. References & Bibliography 27

1. RESPONSIBILITIES

1.1. Healthcare Workers (HCW)

- Follow this policy;
- Attend appropriate training;
- Report to supervisor/manager when they are unable to follow the policy or if they think there is a problem with equipment.
- Seek the advice of an ICN if they are unable to follow this policy.

1.2. Clinical / Ward Managers

- Ensure HCWs involved in implementing this policy are trained to do so;
- Ensure HCWs have access to and follow this policy;
- Seek advice from Infection Control Nurse (ICN) regarding the correct method of decontamination of equipment.

1.3. Managers

- Support Clinical / Ward managers in implementing this policy.

1.4. Infection Control Team

- Provide teaching opportunities on the implementation of this policy;
- Audit the implementation of this policy;
- Facilitate managers to audit the implementation of this guideline within their area;
- Keep this policy up to date.

1.5. SSD Manager, Estates Manager, Purchase Managers

- Liaise with the Infection Control Teams (ICTs) on matters relating to decontamination.
- Seek the advice of ICTs before purchasing new items that require reprocessing and cannot be autoclaved.

1.6. Medical Physics Technicians

- Report Adverse Incidents to appropriate authorities.

2. INTRODUCTION

This policy details the actions necessary for the safe use of medical devices and appropriate use of disinfectants in NHS Greater Glasgow to minimise the risk of healthcare acquired infection. Medical devices can pose significant hazards to patients if they are reprocessed inadequately or incorrectly. Additionally risks can arise from equipment that should **not be reprocessed, i.e. single-use items**. All HCWs involved in the use of medical devices, must be aware of their role and responsibilities towards patient safety and infection control. The correct decontamination of spillages is also part of the Standard Precautions Policy.

3. THE USE OF SINGLE-USE AND SINGLE-PATIENT USE EQUIPMENT

Prior to use packaging must be checked for single-use markings and decontamination instructions.

Items marked **"Single-Use"** must be used once, on one patient, and discarded as clinical waste.

Items marked **"Single-Patient-Use"** may be decontaminated and only reused on the same patient provided the manufacturer's instructions on decontamination and reuse are followed.

See Section 8 for the Symbol for Single-Use.

4. DEFINITIONS

- ***Decontamination****: the combination of processes, including cleaning, disinfection and or sterilization, used to render a reusable item safe for further use.*
- ***Cleaning****: is the process, which physically removes large numbers of micro-organisms, and the organic matter on which they thrive.*
- ***Disinfection****: is the reduction of the number of viable micro-organisms on a device to a level previously specified as appropriate for its intended further handling or use.*
- ***Sterilization****: a process, which, if specified conditions are met, renders a device sterile, i.e. free from all micro-organisms.*

5. REUSABLE MEDICAL DEVICES (Reusable devices are NEVER marked single-use).

A **medical device** is any piece of equipment that is used on a patient. It includes all equipment, e.g. tourniquets, blood pressure cuffs as well as surgical instruments. Different medical devices require different levels of decontamination. The level of decontamination depends on:

- Where the device has been used;
- The type and amount of contamination;
- The complexity of the device.

This necessitates a risk assessment before reprocessing begins. There are three categories of risk to be considered for the equipment, the procedure and the patient. They are explained in:

Risk Categorisation for the Decontamination of Medical Devices. See 5.1;

Risk Categorisation of Clinical Procedure for all types of CJD. See 5.2;

Surgical Instruments used on patients with or suspected of having CJD. See 5.3.

5.1. Risk Categorisation for the Decontamination of Medical Devices

Risk Category	Description	Recommendation
High Risk	Items in close contact with a break in the skin or mucous membrane or introduced into a sterile body area.	Sterilization - Decontamination to be undertaken in a specialist facility, e.g. Sterile Services Dept.
Intermediate Risk	Items in contact with intact skin, particularly after use on infected patients or prior to use on immuno-compromised patients, or items in contact with mucous membranes or body fluids.	Sterilization or disinfection required. Decontamination to be undertaken in a specialist facility, e.g. Sterile Services Dept or ICT Approved Area.
Low Risk	Items in contact with healthy skin or not in contact with patient.	Decontamination – may be undertaken in the clinical area.

5.2. Risk Categorisation of Clinical Procedure for all types of CJD

In addition to the Classification of Risk 5.1, there are also Technical Requirements for Decontamination for specific instruments in relation to CJD. The risk assessment is explained below.

(The rationale for additional precautions in the decontamination of equipment for instruments potentially contaminated with CJD is that normal steriliser temperatures do not inactivate the prion, which is thought to cause CJD.)

Risk Categorisation of Clinical Procedure for all types of CJD
High Risk Procedures All procedures that involve piercing the dura, or contact with the trigeminal and dorsal root ganglia, or the pineal and pituitary glands. Procedures involving the optic nerve and retina. *(Decontamination equipment, facilities and staff require approval to level stated in Appendix D1A of the Glennie Report)*
Medium risk procedures Other procedures involving the eye including the conjunctive, cornea, sclera and iris. Procedures involving contact with the lymphoreticular system (LRS). Anaesthetic procedures that involve contact with LRS during tonsil surgery (for example laryngeal masks). Procedures in which biopsy forceps come into contact with LRS tissue Procedures that involve contact with olfactory epithelium. *(Decontamination equipment, facilities and staff require approval to level stated in Appendix D1A of the Glennie Report)*
Low risk procedures All other invasive procedures including other anaesthetic procedures and procedures involving contact with the cerebral spinal fluid.

5.3. Surgical Instruments used on patients with or suspected of having CJD.

Risk Category	Action	Comment
Patient suspected of having CJD	Quarantine instruments in designated box.	See CJD Policy
Patient in high-risk group: recipients of hormones derived from human pituitary glands; recipients of human dura mater grafts; recipients of contaminated blood products and people with close family history of familial CJD.	For operations on the brain, spinal cord or eye destroy all instruments. For other non high-risk operations quarantine instruments until diagnosis confirmed. If confirmed destroy instruments, if not follow supervised HIGH LEVEL DECONTAMINATION.	See CJD Policy
Patient diagnosed as having CJD	Destroy all instruments by incineration. Place instruments in a designated box and seal. Mark for incineration and arrange for special uplift via facilities management.	See CJD Policy

5.4. Decontaminating equipment

Each time a piece of equipment is decontaminated it must be examined to ensure it remains fit for purpose and does not pose an infection hazard.

Deteriorated equipment that cannot be decontaminated must be replaced.

There should be a Standard Operating Procedure and schedule for the decontamination of equipment that requires frequent cleaning.

There must be sufficient equipment to allow for effective decontamination between patients. Where there is insufficient equipment this must be reported.

5.5. Quick Cut A-Z Table

A	B	C	D
E	F	No Gs	H
I	No Js	No Ks	L
M	N	O	P
No Qs	R	S	T
U	V	W	No XYZs

5.6. Decontamination Table (This list is not exhaustive)

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Airways	Intermediate Risk	Single-use Equipment.	
Ambu bags	Intermediate Risk	After each use, return to SSD for decontamination. If filter *in situ* change filter between patient use and wipe outside with a detergent wipe and dry thoroughly.	Disposable.
Anaesthetic equipment	Intermediate Risk	Single-use equipment.	Send to SSD for decontamination.
Auroscope	Intermediate Risk	After each use, return to SSD for decontamination.	Disposable. Decontaminate in an ICT approved area.
Baths	Low Risk	Clean with water and detergent after each patient. If contaminated with blood or body fluid, see section 9.4 of this policy.	Use sanitizer, e.g. Titan.
Bath mats	Low Risk	Use disposable bath mat.	For reusable bathmats, clean with hot water and detergent then rinse and dry.
Baths - specialist, hydrotherapy pools, birthing pools	Low Risk	Refer to manufacturer's instruction or Local Departmental Policy.	Contact Infection Control Team for advice pre purchase.
Bed-frames/Cot sides (including base and underneath),	Low Risk	Between patients and at weekly intervals. Clean with hot water and detergent then rinse, or use detergent wipes, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Bed-pan Bed-pan shells	Low Risk Low Risk	Discard all contents carefully into a macerator. Clean with detergent and water, or use a detergent wipe, and dry thoroughly after each use. If contaminated with blood or body fluid, see section 9.4 of this policy.	Wash in washer disinfector machine with heat disinfection cycle.

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Bed-tables	Low Risk	Clean, with detergent and water and dry thoroughly daily, if soiled, or if patient discharged.	
Beds – specialist	Low Risk	Refer to manufacturer's instruction.	
Bidets	Low Risk	Clean with detergent and hot water. If contaminated with blood or body fluid, see section 9.4 of this policy.	Clean using sanitizer, e.g. Titan.
Blinds vertical.	Low Risk	Keep dust free.	Where possible use blinds between double glazed panels.
Bowls / basins(washing)	Low Risk	Clean with detergent and hot water and dry after use. Store dry and inverted.	Wash in washer disinfector machine with heat disinfection cycle.
Breast feeding equipment	Intermediate Risk	See Standard Operating Procedure.	
Brushes – shaving	Low Risk	Single patient use.	Use shaving foam.
Carpets	Low Risk	Vacuum with machine compliant with **BS5415**. Clean, as per Domestic Specification, by hot water extraction. Allow to dry. If contaminated with blood or body fluid, see section 9.4 of this policy.	NB: - Carpets are not suitable for clinical areas. Please discuss with Infection Control Team before purchasing.
Chairs: Plastic Fabric	Low Risk	Clean with detergent and hot water, rinse, or use detergent wipes, and dry thoroughly after discharge of each patient at the end of each clinic or if visibly soiled. Vacuum monthly or after patient discharge.	If contaminated clean by hot water extraction. NB:- Fabric chairs are unsuitable for clinical areas. All chairs must be made of fire retardant material.
Cloths (cleaning)	Low Risk	Disposable. Single-episode use.	
Commodes	Low Risk	Clean **all surfaces** including handles with detergent and hot water, or detergent wipes, and dry thoroughly after each patient use. For patients with diarrhoea, disinfect commode with 1000 ppm available chlorine after cleaning.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Computers and other IT equipment in clinical areas.	Low Risk	Keep dust free. Decontaminate hands after touching the keyboard with alcohol hand gel. If possible cover keyboards with plastic covers that can be wiped with a detergent/wet wipe and then dry.	Can become a source of micro-organisms.
Couches – examination	Low Risk	Between patients and at weekly intervals. Clean with hot water and detergent then rinse, or use detergent wipes, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Cold hot pad	Low Risk	Single patient use.	Follow manufacturer's instructions. Do not put into drug or food fridge.
Cord clamps / cutters	Low Risk	Single baby use.	
Crockery and cutlery	Low Risk	Wash in an industrial dishwasher.	If no dishwasher, wash in bactericidal detergent and hot water, rinse and dry before storage.
Curtains (Windows) Curtains (Bed screen)	Low Risk Low Risk	Require cleaning every six months (or as Domestic Specifications), or when soiled. Depends on area (different specifications). Check domestic frequency.	The ICT may request additional cleaning for some specific infections. See Isolation Cleaning Guidance.
Dental Equipment	Intermediate Risk	Send to SSD for decontamination.	Decontaminate in an ICT Approved Area.
Dental impressions	Intermediate Risk	See Standard Operating Procedure.	
Denture pots	Intermediate Risk	Single patient use.	
Drip stands	Low Risk	Between patients, if visibly soiled and at weekly intervals. Clean with hot water and detergent then rinse, or use detergent wipes, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Duvets	Low Risk	All should have plastic covers. After discharge of each patient, clean with detergent and hot water, or detergent wipe, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Earphones	Low Risk	Between patients, clean with detergent and hot water, or detergent wipes, and dry thoroughly.	Single patient use.
Ear syringing equipment	Intermediate Risk	See Standard Operating Procedure.	
ECG Equipment	Low Risk	Clean connection wires with detergent and hot water, or use detergent wipes, and dry thoroughly. Use disposable electrodes.	
EEG Equipment	High Risk CJD risk	See Standard Operating Procedure.	
Endoscope equipment	High Risk/ Intermediate Risk	See Standard Operating Procedure.	
Enteral Feeding	Intermediate Risk.	See Standard Operating Procedure.	
Eye equipment (specialist)	Intermediate Risk CJD Risk	Apart from tonometers, any item in direct contact with the eye must be sent to SSD for decontamination.	
Face cloths	Low Risk	Single patient use.	
Fans – electric	Low Risk	See Standard Operating Procedure.	Do not use on patients with exfoliating skin conditions, or MRSA in the open ward.
Foam wedges	Low Risk	Use only if covered with a plastic waterproof cover. Clean with hot water and detergent, or use detergent wipe, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Hair (Brushes & Combs)	Low Risk	Single patient use.	
Hoists	Low Risk	See Standard Operating Procedures.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Horizontal Surfaces other. (e.g. ITU Gantry)	Low Risk	Keep clean and dust free. Damp dust as required.	
Hot cold pad	Low Risk	Disposable, single patient use.	Follow manufacturer's instructions. Do not store in food or drug fridges.
Humidifiers	Intermediate Risk	Disposable – Single patient use. (Use only sterile fluids in humidifiers).	Reusable, i.e. ITU see Standard Operating Procedure
Hydraulic plinths – Arkon	Low Risk	Clean with detergent and water after each use and at the end of the day.	
Ice making machines	Low risk	See Standard Operating Procedure.	
Incubators	Low risk	See Standard Operating Procedure.	
Isolation Rooms	Low Risk	See Standard Operating Procedure.	
Laryngoscope blades	Intermediate Risk	After use return to SSD for decontamination.	Disposable single use. Decontaminate in an ICT approved BTSS.
Locker tops	Low Risk	Clean, with detergent and water and dry thoroughly daily, if soiled, or if patient discharged.	
Lumbar puncture needles / sets	High Risk & CJD risk	Single use disposable.	
Mattresses	Low Risk	Wipe with a detergent wipe after patient discharge or if soiled.	Check the mattress cover is waterproof and intact after each use. If visible staining or evidence of damage do not reuse.
Mops:- Dry - dust attracting Wet - single procedure use Isolation room mops		Follow manufacturer's instruction Send to laundry or machine wash after daily use or discard if single-use. Use designated mops in isolation room. Decontaminate as per normal mop heads.	Wash with detergent and hot water after each use, squeeze dry and store with mop head upwards and supported in a stand. Machine-wash mop-head daily. Use disposable mop heads.

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Moving & Handling Equipment	Medium Risk	See Standard Operating Procedure.	
Nebulisers	Intermediate Risk	Single patient use: Clean with detergent and sterile water between each use on the same patient. Rinse with sterile water and dry thoroughly, keep covered. Renew after 7 days or if visibly contaminated.	Disposable single use. Blowing 0_2 though the tubing aids drying.
Oxygen masks & tubing	Intermediate Risk	Single patient use. Change if visibly dirty.	Reusable: send to SSD for decontamination. See Anaesthetic equipment
Peak flow machines	Intermediate Risk	Use single use disposable mouthpieces.	Where possible allocate the patients their own machine.
Pillows	Low Risk	All should have plastic covers. After discharge of each patient, clean with detergent and hot water, or detergent wipe, and dry thoroughly. If contaminated with blood or body fluid, see section 9.4 of this policy.	If evidence of damage do not reuse.
Podiatry foot baths	Low Risks	Clean with detergent and water at the start of each session and between patients. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Podiatry foot rests	Low Risk	Clean with detergent and water at the start of each session and between patients. If contaminated with blood or body fluid, see section 9.4 of this policy.	
Podiatry Instruments	Intermediate Risk	Send to SSD.	Decontaminate in an ICT approved area.
Pram	Low Risk	Clean with detergent and water after each patient use. If contaminated with blood or body fluid, see section 9.4 of this policy.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Pumps Infusion or Enteral	Low Risk	Keep clean. Decontaminate with a detergent wipe daily, between each patient and if visibly soiled. If contaminated with blood or body fluid, see manufacturer's recommendations.	If no advice on blood or body fluid contamination contact an ICN.
Razors	Low Risk	Disposable single use.	Single-patient use only
Roho cushions	Intermediate risk	Must be allocated to an individual patient and manufacturer's instructions on decontamination followed. Keep clean whilst in use.	
Sanitary ware: - Wash Basins, Showers, Sinks, Toilets, Raised toilet seats, bidets	Low Risk	Clean as per specification with detergent and hot water solution using a disposable cloth. Discard cloths after use. If contaminated with blood or body fluid, see section 9.4 of this policy.	Use sanitizer, e.g. Titan. (Wash hands after dirty procedures even if gloves worn).
Scales	Low Risk	Clean with detergent and hot water, or detergent wipe, and dry thoroughly after each use. If contaminated with blood or body fluid follow, Body Fluid Spillage Procedure of this policy section 9.4.	
Scissors	Depends on use	Use sterile single use scissors for aseptic procedures. Multi-use scissors must be wiped with an alcohol wipe before and after each "clean" use.	Reusable, send to SSD for decontamination.
Sclera retractors	High Risk CJD risk	See Eye Equipment.	
Seats – car (children)	Low Risk	Send cover including straps to laundry between patients. Clean with detergent and hot water, or detergent wipes, and dry thoroughly after each use. If contaminated with blood or body fluid follow, Body Fluid Spillage Procedure of this policy 9.4.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Speculae	Intermediate Risk	Disposable single-use.	Reusable, send to SSD for decontamination after each use. Decontaminate in an ICT approved area.
Sphygmomanometer	Low Risk	Separate cuff cover and send for cleaning / disinfection if soiled. Wipe cuff with a detergent wipe and dry thoroughly after use by a patient with an alert organism, e.g. MRSA, C. difficile or VRE. Wipe the remaining parts with detergent wipe and dry thoroughly.	Disposable cuff. Hospitals - if patient has an alert organism, use patient specific sphygmomanometer.
Spirometers	Low Risk	Use disposable mouthpiece after each patient use. See Standard Operating Procedure.	
Sputum cartons / pots	Low Risk	Single patient use disposable.	
Stethoscopes	Low Risk	Wipe the bell and diaphragm with an alcohol wipe after use. Remove the earpieces, clean in detergent and hot water, dry then wipe with alcohol wipes as required.	In high dependency areas there should be a designated stethoscope per patient, which should be cleaned after each use.
Suction equipment: Catheter Tubing to jar Tubing to vacuum source Jar Filter	Low – intermediate risk	Disposable Single use / Single patient use. Change as per manufacturer's instructions. Disposable liner: Ensure liner is sealed prior to disposal. Change filter if discoloured or wet or in use >24hours.	Reusable jars discard contents in a washer disinfector or sluice. **Personal Protective Equipment** (PPE) is mandatory. If a washer disinfector is not accessible, clean with detergent and water and disinfect jar with 1,000ppm available chlorine and wipe dry prior to reuse.
Surgical instruments **Excluding those used on patients with or suspected of having CJD. See Table 5.2 & 5.3** Excluding tonsillar instruments.	High risk	Send to SSD for decontamination	Single use disposable.

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Telephone (patient)	Low Risk	Clean with detergent and water or detergent wipes daily and dry thoroughly or after a patient with a known infection or alert organism.	
TENS Machines / Equipment	Low Risk	Pads: disposable single use. Leads & machine: wipe with detergent wipes and dry thoroughly between patients. If contaminated with blood or body fluid, do not decontaminate but discard.	
Theatre Tables / Theatre Trolleys	Low Risk	Clean with detergent and hot water, or detergent wipes, and dry thoroughly after each use. If contaminated with blood or body fluid follow, Body Fluid Spillage Procedure of this policy 9.4.	
Thermometers.	Intermediate risk	Disposable single use. Mercury - use alcohol wipe. Electronic - follow manufacturer's instructions.	Daily or if soiled, wet wipe outside of tympanic machine.
Toys:- Non-absorbent i.e. plastic	Low Risk	Clean with detergent and hot water, or detergent wipe, and dry thoroughly. Soft toys must be single patient use.	If heavily soiled discard or seek advice from Infection Control Seek advice from Infection Control Nurse pre purchase. Soft toys must be patient's own.
Tonometer prisms	Intermediate and CJD risk	See Standard Operating Procedure.	
Trolley (dressing)	Low Risk	Before and after each use, clean with hot water and detergent or detergent wipes and dry thoroughly.	Alcohol wipes are acceptable if surface clean. If contaminated follow section 9.4.
Transducers (pressure) Transducer cables	High Risk Low Risk	Single patient use. Clean with hot water and detergent or detergent wipes and dry thoroughly.	

Item	5.1 Risk Category	Preferred method (NB Sterile Services Dept = SSD)	Alternative Method / Comments
Urinals	Low Risk	Use disposable equipment or wash in machine with heat disinfection cycle.	
Ultrasonic cleaner tanks	Low Risk	Clean with detergent and water after use and at every fluid change.	
Ultrasound heads	Low Risk	Follow manufacturer's instruction.	Ultrasound heads in direct contact with wound, mucosa or broken skin will require high-level decontamination.
Urine jugs	Low Risk	Use disposable equipment or wash in machine with heat disinfection cycle.	Wash with hot water and detergent and store dry.
Vaginal cones	Intermediate Risk	Single patient use.	Reusable, send to SSD for decontamination.
Vases (flower)	Low Risk	Wash in sluice with detergent and water – then wash hands.	If no sluice use DSR room.
Ventilators	Intermediate risk	See Standard Operating Procedure.	
Wax baths	Intermediate risk	Wax should be processed between patients at 70°C for at least 3 mins.	Only use on patients with intact skin and without skin condition.
Wheelchair (Patient transfer) (Individual use)	Low Risk	Clean with detergent and hot water, or detergent wipes, and dry thoroughly after each use. If contaminated with blood or body fluid follow, Body Fluid Spillage Procedure of this policy 9.4.	Keep clean.

6. NEW EQUIPMENT PURCHASE FOR NHS, UNIVERSITY, RESEARCH, TRIAL OR LOAN

In line with MDS DB 9801 *Guidance on the sale, transfer of ownership and disposal of used medical devices for hospitals and community-based organisations,* the person who intends to purchase, use or loan the equipment must first **seek the advise of a member of the infection control team** prior to purchase, or loan of any equipment which requires, and is authorised by the manufacturer for, decontamination between patients. Only medical equipment which has been approved by the manufacturer as reusable shall be decontaminated for reuse.

The Ethics Committee should not approve any trial or research unless the methodology includes a statement on decontamination of reusable equipment.

7. GENERAL GOOD PRACTICE GUIDELINES

Before using any equipment check the manufacturer's instructions regarding reprocess (See section 8 - Symbols on Packaging and their meaning.)

- Ensure your hands are clean before using any equipment.
- Check the wrapper and identify the markings on the medical device (See section 8).
- When cleaning medical devices or the environment, as per Decontamination Table 5.5, follow the manufacturer's instructions for volume of detergent to water. General Purpose Neutral Detergent is 5ml detergent to 5 litres of water.

If wrapped: -

- Check the expiry date has not passed. If beyond the expiry date, DO NOT USE.
- Check the wrapping is intact. If not intact, DO NOT USE.

Check there is no staining on the wrapper or indication that it has been wet after sterilization. If staining present, DO NOT USE. See section 8 for Symbols.

7.1. Correct Disassembly and Reassembly of Surgical Instruments

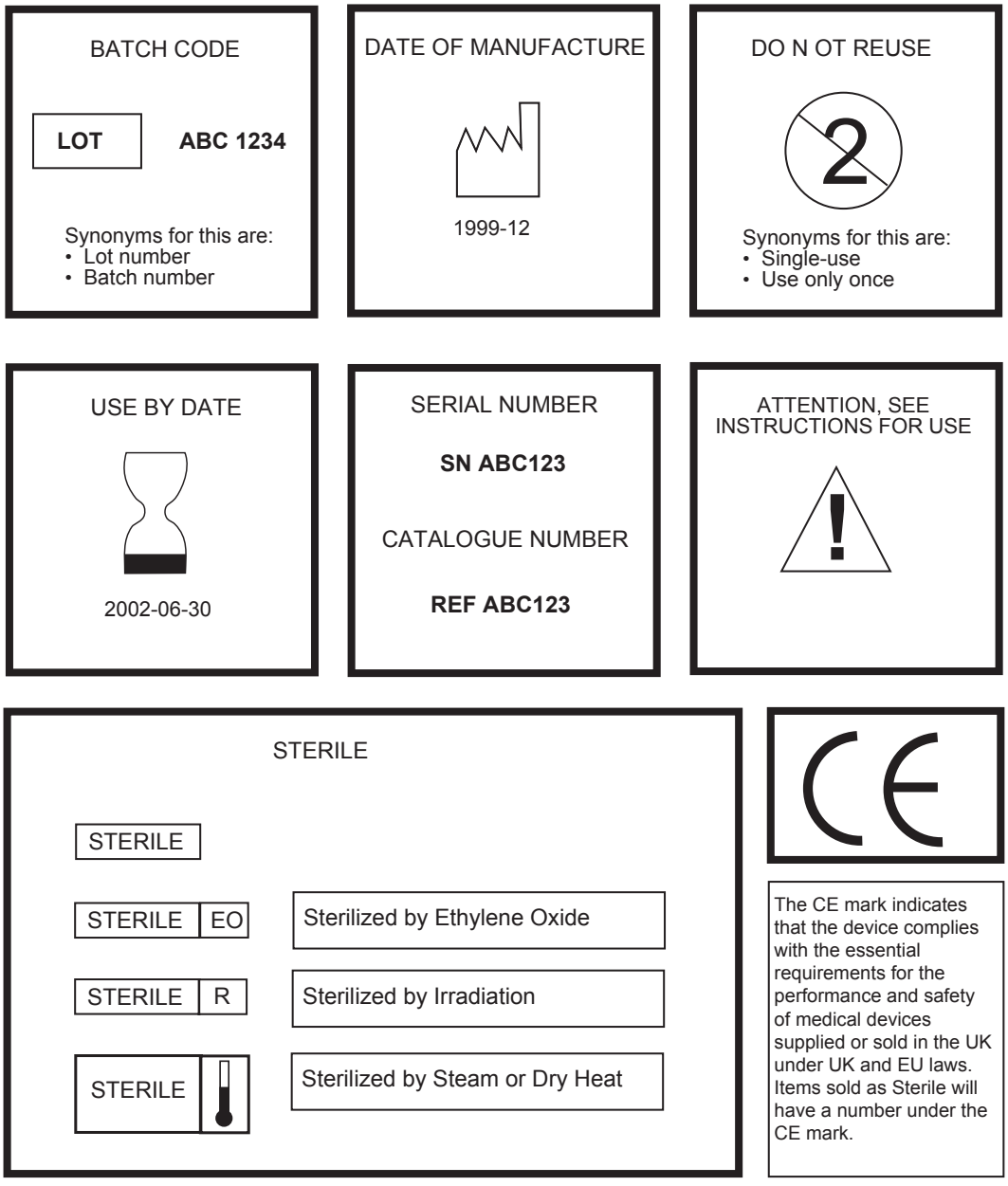
It is vitally important that the correct procedures are followed for disassembling and reassembling equipment during decontamination. Do not disassemble or reassemble any equipment unless you have been instructed or trained to do so. This training or instruction should be documented.

7.2. Training

Managers must ensure that all HCWs are appropriately trained and have access to detailed instruction illustrating the correct procedure taking into account the manufacturer's instructions. Seek the advice of the ICT when necessary. SAN(SC)99/02.

8. SYMBOLS USED ON MEDICAL PACKAGING & THEIR MEANINGS

These symbols are the most common ones appearing on medical devices and their packaging. They are explained in more detail in the British and European Standard BS EN 980: 1997 *Graphical symbols for use in the labelling of medical devices*. Symbols appearing on medical devices and/or their packaging must be adhered to. If a user does not understand a symbol, they should first look in the instructions for use or user manual for an explanation.



9. DISINFECTANTS

Disinfectants are chemicals that are subject to the Control of Substances Hazard to Health (COSHH) Regulations (1999). Their use in hospitals or health care premises is limited due to: -

- Disinfection of body fluid spillages and
- Disinfection of heat labile equipment (such procedures must be approved of by the ICT).

To comply with COSHH, all disinfectants must be kept in locked cupboards. Instructions for use must be displayed close to the cupboard. When using disinfectants the approved procedure must be followed – this is to ensure that the disinfectant works, and does not cause harm to HCWs, equipment or the environment. The approved procedure is detailed in 9.4.

9.1. Personal Protective Equipment

Protective clothing should be worn in accordance with Body Fluid Spillage Procedure 9.4 and the local COSHH assessment for the disinfectant used. The healthcare worker prior to any procedure must undertake a risk assessment where any chemicals including DISINFECTANTS are DETERGENTS are used.

9.2. Hazard Warning – Urine Spillages

There is a risk of chlorine gas release with hypochlorites used directly on urine.

NB Acidic solutions such as urine may react with the hypochlorite and cause the release of chlorine vapour.

Never use chlorine-releasing granules (e.g. HAZ TABS/ACTICHLOR) on urine.

Hypochlorite solutions should therefore not be used directly on urine spills (DOH 1990). Note hypochlorite solutions are used in this policy to disinfect the area after the spillage has been removed.

9.3. Spillages on Carpets

Please note carpets are not recommended for clinical areas. Carpets in healthcare premises should be able to withstand 10,000 ppm available chlorine. If there are areas that do not meet this standard decolouration will occur during decontamination. Contact ICN if large volume body fluid spillages occur on carpets.

NB Spillages within community healthcare settings

HCWs cannot use disinfectants to deal with blood and body fluid spillages occurring in the patient's own home because of the possibility of damage.

9.4. Body Fluid Spillage Procedure

As part of the **Standard Precautions Policy** spillages of blood and body fluids must be decontaminated as follows (The formulae for HAZ Tabs and Actichlor is on the next page):

WET BLOOD SPILLAGES	DRIED BLOOD SPILLAGES	ALL OTHER BODY FLUID SPILLAGES
Get someone to guard the area whilst you collect the necessary equipment.		
Put on protective clothing, gloves, apron, and eye protection if necessary.		
Apply Chlorine releasing granules, e.g. **HAZ TAB, or ACTICHLOR Granules.** Leave granules over spillage for a minimum of 3 minutes. The spillage should no longer have a fluid consistency. If the spillage is still liquid apply more granules and leave for a further minimum of 3 minutes.	Put paper towels over the spillage. Make up 10,000ppm available chlorine disinfectant by adding **HAZ TAB or ACTICHLOR tablets** to the container with the measured amount of water, screw on the lid and leave for three minutes. Then invert the container to ensure the tablets are dissolved. (Alternative – neat **Milton 1%** hypochlorite solution.)	Using paper towels – or incopad if necessary – remove spillage contents and discard into yellow clinical waste bag.
Remove spillage with a scoop, if available, or **envelop** spillage in paper towels, and discard into a yellow clinical waste bag.	Pour enough of the solution over spillage to saturate the paper towels and leave for 5 minutes. Still wearing protective clothing, pick up the paper towels and place in a yellow clinical waste bag.	Clean spillage area with General Purpose Neutral Detergent and wipe dry. Make up 1,000ppm available chlorine disinfectant using HAZ TAB, ACTICHLOR tablet in a container filled to the fill line with tap water, screw on the lid and leave for three minutes. Then invert the container to ensure the tablets are dissolved. (Alternative – use neat Milton 1%) Still wearing protective clothing, pick up the paper towels and place in a yellow clinical waste bag
Clean spillage area with General Purpose Neutral Detergent.	Clean spillage area with General Purpose Neutral Detergent.	If still required, clean spillage area with General Purpose Neutral Detergent.
Dry the area thoroughly.		
Change gloves and discard the remaining disinfectant and return the container to the disinfectant cupboard.		
Remove gloves and apron and wash hands thoroughly.		

(Writing in italic is a procedure common to all three Body Fluid Spillage procedures.)

9.5. Formulae for disinfectant calculations

	ACTICHLOR Tablets	HAZTABS Tablets	1% Milton Solution	Comment
1,000 ppm available chlorine	1.7 gm tablet in 1 litre of tap water	1 tab in 2.5 litres of tap water	1: 10 solution 10 mls Milton in 90 mls tap water	**General environmental disinfection**
10,000 ppm available chlorine	1.7 gm tablet in 100 mls of tap water	4 tabs in 1 litres of tap water	Use undiluted	**Disinfection of blood spills**

10. ADVERSE INCIDENT REPORTING (MEDICAL DEVICES)

- An adverse incident is an event which causes, or has the potential to cause unexpected or unwanted effects involving the safety of patients, users or other persons. Any adverse incident involving a medical device should be reported following the local Incident Reporting System.

See http://www.medical-devices.gov.uk/sn2001(01).htm

See http://www.show.scot.nhs.uk/shs/hazards_safety/hazardsp3.HTM

for how to report incidents.

If an adverse incident is detected it must be reported via the incident reporting system. The advice in SAN(SC)01/01 will be followed.

11. EQUIPMENT SENT FOR SERVICE OR REPAIR

Prior to any equipment being serviced or repaired, departmental staff must indicate either by label, or in the case of routine maintenance, sign to indicate the perceived level of potential contamination.

11.1. When requesting a repair

- Before equipment is presented for repair it must be appropriately decontaminated as per decontamination table, 5.5. Single use items that are in use and are found to be faulty should be decontaminated before being sent back to the manufacturers or to pharmacy – seek advice from ICT.
- In addition to the repair slip, a Certificate of Decontamination Label must be completed and attached to the item for repair by a suitably trained HCW aware of the likely contamination and whether the equipment has been appropriately decontaminated.
- No equipment will be accepted for repair if visibly soiled.
- No equipment will be accepted for repair if a Certificate of Decontamination has not been completed.

11.2. For Routine Maintenance

For items that are routinely maintained by works staff, e.g. suction machines, suitably trained HCW must sign the worksheet to indicate that the equipment is in an appropriate condition, i.e. the equipment is not contaminated and is ready for next patient use condition.

N.B. Some equipment such as sluice masters cannot be considered decontaminated. It is therefore important that all maintenance staff recognise the potential hazards and use appropriate protective clothing.

IF ANY HELP IS REQUIRED IN DECONTAMINATING EQUIPMENT PRIOR TO SERVICE OR REPAIR OR ON THE USE OF PROTECTIVE CLOTHING, THE INFECTION CONTROL NURSE OR INFECTION CONTROL DOCTOR MUST BE CONTACTED PRIOR TO ANY DECONTAMINATION OR REPAIR WORK COMMENCING.

12. AUDIT

Area being audited _____

12.1. Criteria	Achieved	Not Achieved	Not Applicable
HCWs are aware of, and have access to, this policy. (Ask 2 HCWs if they know of the policy and where it is kept).			
HCWs are aware of the differences between single use and single patient use equipment (Ask 2 HCWs).			
HCWs understand the symbols used on packages. (Ask 2 HCWs).			
HCWs are aware of the risk assessment for reusable medical equipment (Section 5 a, b,& c). (Ask 2 HCWs).			
HCWs comply with the policy in relation to decontamination of equipment. (Ask 2 HCWs what they would do with an item from the minimal, intermediate and high-risk categories.)			
HCWs disassemble and reassemble equipment correctly – ask to see the instructions for disassembling of one piece of equipment, e.g. ambu bags.			
Disinfectants are stored in a locked cupboard. Information on how to decontaminate spillages is accessible and in close proximity to the disinfectant. There is a notice on the cupboard on how to decontaminate spillages.			
HCWs know why they must not put chlorine-releasing granules on urine. (Ask 2 HCWs).			
HCWs follow section 11 before sending equipment for service or repair. (Ask 2 HCWs).			
There are a supply of labels / certificates for decontamination of equipment.			
Totals			

General comment on performance: -

Agreed action plan: -

Date _____ Signed Manager _____ Signed ICN._____

Copy of audit to: _____

13. REFERENCES & BIBLIOGRAPHY

Advisory Committee on Dangerous Pathogens. Transmissible Spongiform Encephalopathy Agents: Safe Working and the Prevention of Infection. Crown Copyright. 1998

Ayliffe, G.A.J., Lowbury, E.J.L., Geddes, A.M. & Williams, J.D. (2000) *Control of Hospital Infection: A Practical Handbook* Chapman & Hall.

Control of Substances Hazardous to Health. Departments of Health. 1999.

Health Service Guidelines. HSG(93) Decontamination of equipment prior to inspection, service or repair.

Medical Devices Agency Decontamination of Endoscopes. MDA DB 9607 1996.

Medical Devices Agency – Reporting Adverse Incidents and Disseminating Safety Warnings. MDA SN 2001 (01)

Medical Devices Agency DB2000(04) Single-use Medical Devices: Implications and Consequences of Reuse.

Medical Devices Agency MDA/2003/019 Re-usable stainless steel vaginal specula.

Medical Devices Agency MDA DB 9801 Supplement 2 Oct 2001 Guidance on the sale transfer of ownership and disposal of used medical devices.

Medical Devices Agency. Safety Notice Enteral Feeding Systems MDA SN 2000(27)

Microbiology Advisory Committee to the Department of Health (1997) *Sterilisation, Disinfection and Cleaning of Medical Equipment: Guidance on Decontamination* Medical Devices Agency.

NHS HDL (2003) 42 Decontamination – NHS Scotland Sterile Services Provision Review Group.

NHS Scotland: Sterile Services Provision review Group 1st Report NHS Scotland (The Glennie Report) 2001.
The Institute of Environmental Health. (1996) *Basic Food Hygiene Teaching Package*

The Royal Marsden Hospital (1999) 4th Edition *Manual of Clinical Nursing Procedures* Blackwell Scientific.

Safety Action Notice Reporting of Adverse Incidents in NHSScotland SAN(SC)01/01.

Safety Action Notice. Inadequate disassembly of surgical instruments prior to cleaning and sterilization risk of contamination. SAN(SC)99/02.

Scottish Health Technical Memorandum 2010 Sterilization. NHS In Scotland HEEU 1999

Scottish Health Technical Memorandum 2030 Washer Disinfectors NHS In Scotland HEEU 1999

Scottish Infection Manual. Advisory Group on Infection. Scottish Office Department of Health. 1998.

Scottish Office Home & Health Dept / CMO (93)1. Neuro and Ophthalmic Surgery Procedures on Patients with or Suspected to Have or at Risk of Developing, Creutzfeldt-Jacob Disease (CJD) or Gerstmann-Straussler Syndrome (GSS).

Sterilization, Disinfection and Cleaning of Medical Equipment: guidance on Decontamination

From the Microbiology Advisory Committee to Dept. of Health. Part1 Principles, Part 2 Protocols, Part 3 Procedures.

Wilson, J. (1995) *Infection Control in Practice* Balliére Tindall.